

# Mattia Borgarino

## List of Publications by Year in descending order

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52  
papers

426  
citations

933447

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h-index

888059

17  
g-index

52  
all docs

52  
docs citations

52  
times ranked

205  
citing authors

#	ARTICLE	IF	CITATIONS
1	Circuit-Based Compact Model of Electron Spin Qubit. Electronics (Switzerland), 2022, 11, 526.	3.1	1
2	On the VCO/Frequency Divider Interface in Cryogenic CMOS PLL for Quantum Computing Applications. Electronics (Switzerland), 2021, 10, 2404.	3.1	2
3	Degradation mechanisms in heterostructure devices and their correlation with defects. , 2017, , 503-514.		0
4	On the limitations of transimpedance amplifiers as tools for low-frequency noise characterization. Microelectronics Journal, 2014, 45, 152-158.	2.0	0
5	A K-band BiCMOS low duty-cycle resistive mixer. , 2014, , .		2
6	A low power Ku phase locked oscillator in low cost 130nm CMOS technology. Microelectronics Journal, 2014, 45, 619-626.	2.0	4
7	A 12â€‰GHz 30â€‰mW 130â€‰nm CMOS Rotary Travelling Wave Voltage Controlled Oscillator. Active and Passive Electronic Components, 2012, 2012, 1-10.	0.3	0
8	Comparison between RTW VCO and LC QVCO 12ÂGHz PLLs. Analog Integrated Circuits and Signal Processing, 2012, 73, 749-756.	1.4	5
9	Comparison between RTW VCO and LC QVC 12 GHz PLLs. , 2011, , .		1
10	Low phase noise 130nm CMOS ring VCO. , 2011, , .		3
11	15 GHz quadrature voltage controlled oscillator in 130Ânm CMOS technology. International Journal of Microwave and Wireless Technologies, 2011, 3, 627-631.	1.9	2
12	Low-Cost Integrated Microwave Radiometer Front-End for Industrial Applications. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 3011-3018.	4.6	7
13	A 5.2mW ku-band CMOS injection-locked frequency doubler with differential input / output. , 2009, , .		7
14	A 130nm CMOS tunable digital frequency divider for dual-band microwave radiometer. , 2009, , .		1
15	A broadband RF 65nm CMOS front-end for cable TV reception. Microelectronics Journal, 2008, 39, 703-710.	2.0	1
16	Self-Oscillation Free 0.35 \$mu\$m Si/SiGe BiCMOS X-Band Digital Frequency Divider. IEEE Microwave and Wireless Components Letters, 2008, 18, 473-475.	3.2	3
17	65 nm CMOS SSB mixer for UWB synthesiser. International Journal of Electronics, 2008, 95, 305-312.	1.4	0
18	SiGe BiCMOS X-Band integrated radiometer. , 2008, , .		2

#	ARTICLE	IF	CITATIONS
19	System-on-chip microwave radiometer for thermal remote sensing and its application to the forest fire detection. , 2008, , .		17
20	An Empirical Bipolar Device Nonlinear Noise Modeling Approach for Large-Signal Microwave Circuit Analysis. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 4341-4352.	4.6	28
21	High linearity CMOS mixer for domestic 5GHz WLAN sliding-IF receivers. Microelectronics Journal, 2006, 37, 1012-1017.	2.0	4
22	Microwave large-signal effects on the low-frequency noise characteristics of GaInP/GaAs HBTs. IEEE Transactions on Electron Devices, 2006, 53, 2603-2609.	3.0	11
23	A Single-Chip 5GHz WLAN Transmitter in 0.35µm Si/SiGe BiCMOS Technology. , 2006, , .		1
24	A Non-Linear Noise Model of Bipolar Transistors for the Phase-Noise Performance Analysis of Microwave Oscillators. , 2006, , .		3
25	Full direct low frequency noise characterization of GaAs heterojunction bipolar transistors. Solid-State Electronics, 2005, 49, 1361-1369.	1.4	9
26	Design of RFICs in 0.35 µm Si/SiGe BiCMOS technology for a 5 GHz domestic transmitter. , 2005, , .		0
27	Identification procedures for the charge-controlled nonlinear noise model of microwave electron devices. , 2004, , .		4
28	High Electric Field Induced Degradation of the DC Characteristics in Si/SiGe HEMT's. Microelectronics Reliability, 2003, 43, 1719-1723.	1.7	0
29	Topology investigation for the low frequency noise compact modelling of bipolar transistors. Solid-State Electronics, 2003, 47, 791-796.	1.4	0
30	The correlation resistance for low-frequency noise compact modeling of Si/SiGe HBTs. IEEE Transactions on Electron Devices, 2002, 49, 863-870.	3.0	8
31	Hot carrier effects in Si-SiGe HBTs. IEEE Transactions on Device and Materials Reliability, 2001, 1, 86-94.	2.0	8
32	Impact of gamma irradiation on the RF phase noise capability of UHV/CVD SiGe HBTs. Solid-State Electronics, 2001, 45, 107-112.	1.4	5
33	Noise behavior in SiGe devices. Solid-State Electronics, 2001, 45, 1891-1897.	1.4	14
34	Reliability physics of compound semiconductor transistors for microwave applications. Microelectronics Reliability, 2001, 41, 21-30.	1.7	26
35	Gate-lag effects in AlGaAs/GaAs power HFET's. Microelectronics Reliability, 2001, 41, 1585-1589.	1.7	0
36	Transimpedance amplifier-based full low-frequency noise characterization setup for Si/SiGe HBTs. IEEE Transactions on Electron Devices, 2001, 48, 767-773.	3.0	26

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37	Surface effects on turn-off characteristics of AlGaAs/GaAs HFETs. Electronics Letters, 2001, 37, 719.	1.0	4
38	Low frequency noise behaviour of InP/InGaAs heterojunction bipolar waveguide phototransistors. Solid-State Electronics, 2000, 44, 59-62.	1.4	5
39	Low-temperature spectrally resolved cathodoluminescence study of degradation in opto-electronic and microelectronic devices. Micron, 2000, 31, 269-275.	2.2	4
40	Dynamic thermal characterization and modeling of packaged AlGaAs/GaAs HBTs. IEEE Transactions on Components and Packaging Technologies, 2000, 23, 352-359.	1.3	21
41	Influence of surface recombination on the burn-in effect in microwave GaInP/GaAs HBT's. IEEE Transactions on Electron Devices, 1999, 46, 10-16.	3.0	29
42	Reliability testing of InP HEMT's using electrical stress methods. IEEE Transactions on Electron Devices, 1999, 46, 1570-1576.	3.0	14
43	On the correlation between drain-gate breakdown voltage and hot-electron reliability in InP HEMTs. IEEE Electron Device Letters, 1999, 20, 152-154.	3.9	23
44	Low Noise Considerations in SiGe BiCMOS Technology for RF Applications. , 1999, , .		6
45	Hot electron degradation of the DC and RF characteristics of AlGaAs/InGaAs/GaAs PHEMT's. IEEE Transactions on Electron Devices, 1998, 45, 366-372.	3.0	56
46	Cathodoluminescence evidence of stress-induced outdiffusion of beryllium in AlGaAs/GaAs heterojunction bipolar transistors. Journal Physics D: Applied Physics, 1998, 31, 3004-3008.	2.8	10
47	Electrical and thermal simulation of local effects for electromigration. Semiconductor Science and Technology, 1997, 12, 1369-1377.	2.0	1
48	On the effects of hot electrons on the DC and RF characteristics of lattice-matched InAlAs/InGaAs/InP HEMTs. , 1997, 7, 3-5.		32
49	Negative VBE shift due to base dopant outdiffusion in DHBT. Solid-State Electronics, 1996, 39, 1305-1310.	1.4	5
50	Non-linear noise mechanisms in SiGe BiCMOS devices. , 0, , .		2
51	Transistor noise in SiGe HBT RF technology. , 0, , .		4
52	Reliability investigation in SiGe HBT's. , 0, , .		5